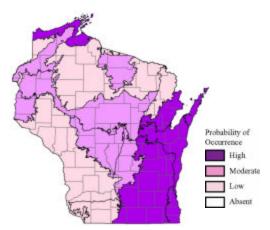
Dunlin (Calidris alpina)

Species Assessment Scores*

State rarity:	NA
State threats:	3
State population trend:	3
Global abundance:	2
Global distribution:	3
Global threats:	3
Global population trend:	5
Mean Risk Score:	3.2**
Area of importance:	3

^{*} Please see the <u>Description of Vertebrate Species</u>
<u>Summaries (Section 3.1.1)</u> for definitions of criteria and scores.



Ecological Landscape Associations

Please note that this is not a range map. Shading does not imply that the species is present throughout the Landscape, but represents the probability that the species occurs somewhere in the Landscape.

Landscape -community Combinations of Highest Ecological Priority

Ecological Landscape	Community
Central Lake Michigan Coastal	Emergent marsh
Central Lake Michigan Coastal	Great lakes beach
Central Lake Michigan Coastal	Warmwater rivers
Northern Lake Michigan Coastal	Emergent marsh
Northern Lake Michigan Coastal	Great lakes beach
Northern Lake Michigan Coastal	Warmwater rivers
Southeast Glacial Plains	Emergent marsh
Southeast Glacial Plains	Impoundments/Reservoirs
Southeast Glacial Plains	Warmwater rivers
Superior Coastal Plain	Emergent marsh
Superior Coastal Plain	Great lakes beach

Threats and Issues

- Dependent on ephemeral mudflats and shallow-flooded fields for resting and feeding sites during spring and fall migration. Some flooded areas are not afforded legal protection under current wetland regulations.
- Changes in the hydrology of large river systems through dikes, dredging, and dams have reduced the amount of shallow floodplain habitat available.
- Habitat loss and degredation from agriculture, urban development, and road-building have reduced the amount of foraging habitat available to migrating shorebirds.
- Several exotic species (e.g., zebra mussel, spiny water flea, Eurasian carp, purple loosestrife) have been introduced into shorebird habitats, but little is known about the effects of these species on migrant shorebirds.

^{**} Based on fewer than the standard 7 criteria.

- Agricultural pesticides (mainly organophosphates) are widely used throughout Central and South America, where millions of shorebirds winter. Shorebird mortality has occurred after "winter" applications of pesticides on agricultural fields.
- Industrial effluents have input toxic chemicals throughout the Great Lakes, thereby potentially affecting the invertebrate foods fueling migratory shorebirds

Priority Conservation Actions

- Create or manage shorebird habitat on public lands at flowages and impoundments. Through dikes, water levels can be raised to flood these areas, and through water control structures, water levels can be manipulated to benefit shorebirds. Migration phenology and specific habitat requirements must be considered when managing for shorebirds. Detailed management guidelines for drawdowns (timing, water body size and depth, flooding/draining rate, etc.) are available in existing national and regional shorebird conservation plans (de Szalay *et al.* 2000, Skage *et al.* 1999, Helmers 1992).
- The Wisconsin Shorebird Survey (URL: http://www.uwgb.edu/birds/shorebird/index.htm) should continue as a long-term monitoring program that documents shorebird species richness and abundance and be expanded to include more managed and non-managed wetland sites.
- Evaluation of management techniques most successful in attracting spring and fall migrants should be a part of a long-term monitoring program at selected sites.
- Workshops for land managers to identify/implement strategies and techniques to manage wetlands to benefit shorebirds should occur periodically, perhaps every 5 years.
- A midwestern shorebird research and management conference featuring regional and national guest speakers/experts should occur at least once during the next decade.
- The production of materials to enhance life-long shorebird learning and emphasizing the importance of wetland ecosystems to Wisconsin's 41 shorebird species is encouraged as part of a landscape approach to integrated ecological learning and thinking.
- A variety of media outlets/devices (e.g., print, television, CD-ROM) should be used to increase public awareness and understanding of shorebirds in Wisconsin.
- Integrated governmental and non-governmental partnerships will be essential to a long-term strategy
 to promote and implement shorebird conservation in Wisconsin. A Wisconsin Shorebird Alliance
 Network (WISCONSAN) is suggested to promote the long-term conservation and management of
 Wisconsin's shorebirds.